selected for study 29 consecutive patients who showed signs and symptoms of "breaking through" hormonal control. These were chosen from a total of 640 patients with proven carcinoma of the prostate.

A retrospective review of these 29 patients disclosed that pain developed in 19 of them. There were genitourinary complaints in nine patients, generalized fatigue and weakness in five, and rectal complaints in two. Before orchiectomy there were objective findings in all of them consistent with stage D carcinoma of the prostate; that is, bony and soft tissue metastases. In 18 there were either elevated acid and alkaline phosphatase levels or abnormalities of other blood monitors. In five an enlarging prostatic mass was found to have developed despite estrogen therapy.

Practically, the decision to do an orchiectomy depended primarily on the subjective deterioration in a patient's condition during treatment with estrogens and our assessment of the patient's response to orchiectomy has been based usually on the degree of symptomatic relief. However, in five of the 29 patients there were objective responses manifested by either reduction of elevated blood monitors, recession of soft tissue metastases or palpable diminution of prostatic mass. Of the 29 patients, there had been response in 11 for more than six months, response in 10 of up to six months and no response in eight. A comparison of the known life spans after orchiectomy of the three groups correlated well with the patient's subjective and objective responses. These results seem to justify bilateral orchiectomy after failure of continuous response to estrogen therapy in carcinoma of the prostate.

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